

ARCHITECTURE DEPARTMENT

MASTER OF ARCHITECTURE PROGRAMME



CHINESE UNIVERSITY OF HONG KONG

2005-2006

DESIGN REPORT

CITY . LIVING . NATURE . LIVING ON THE WATER

LI Tsz Kwan Esther

May 2006



Turning into the contemporary age, city conquers and takes the leading role of development. The importance of nature, however, loses its ground. Nature is not an independent topic to work on, but transform into a new issue as **nature within city**. Could city coexist in harmony with nature? How could city coexist in harmony with nature? **Architecture, bridges the dialogue between the city and nature.**

a b s t r a c t

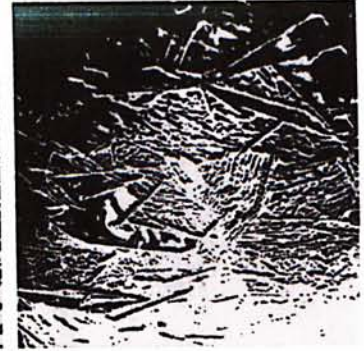
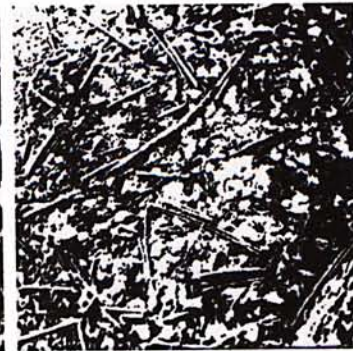
0 1 | r e s e a r c h r e p o r t

0.0	abstract
1.0	introduction
1.1	seasons
2.0	thesis statement
2.1	city - architecture - nature
2.2	architecture, intermediate between city and nature
3.0	reviews of authors
3.1	Gaston Bachelard : The Poetic of Space
3.2	Tadao Ando : nature - architecture
3.3	Jurgen Mayer Hermann - Condensation wall
4.0	design approach
4.1	elements expression
4.2	journey - nature
4.3	journey - city
4.4	design program
5.0	preliminary design
5.1	site - shatin
5.2	inhabitable bridge
5.3	journey - city nature
5.4	nature - community house
6.0	conclusion
7.0	bibliography

".....four seasons which smoothly blend into one another, but each practically each month has its own distinct feeling. the incorporation of seasons in all their abundance and subtlety into garden design in a primary consideration, but it could be more properly that keen attention to the intricacies of the natural world is the dominant consideration..."

Marc P. Keane, japanese garden design

e x p r e s s i o n | a b s t r a c t i o n



i n t r o d u c t i o n

1.1 Seasons

Rethink of position of nature

Season was once an important indicator of our living pattern during the ancient age. Seeding in spring, farming in summer, harvesting in fall, resting in winter—our working pattern followed the annual cycle of nature.

Spring

...To the festive sound of a pastoral bagpipe, nymphs and shepherds dance under their beloved roof, greeting the glittering arrival of the spring...

Summer

...the little shepherd weeps for he hears the awesome threatening storm and his fate...To his tired limbs rest is denied by the fear of lightning, awesome thunder, and the furious swarm of flies and hornets...

Fall

...The peasant celebrates the pleasure of the happy harvest with dances and songs; and inflamed by the liquor of Bacchus, many end their rejoicing with sleep...The hunters, at the break of dawn, set forth with horns, guns, and hounds...

Winter

...Spending quiet contented days by the fire while the rain outside drenches people by the hundreds...Walking on ice, and moving cautiously, with slow steps, for fear of falling, spinning around, slipping, falling down, again walking on ice and running fast until the ice cracks and splits...

Antonio Vivaldi's Four Seasons sonnet extracted (1)

The importance of seasons, however, is overlooked since machine age. Constraint of season is eliminated with the aim of technology, however, the beauty of seasons altogether.

The overlook of seasons reflects our diminishing concern towards nature.

Same as any beings, man is part of the nature. To experience the nature, our body is purist elements. We watch, we hear, we smell, we taste, we touch, to sense the world. Starting from the discovery of fire, man formed society and gave birth to language and architecture. Civilization began. Tribes made shelters with branches, caves, mud and other natural materials. They design the primitive huts through imitating the genius formation of natural. Nature plays an incredible role in man's history.

Undoubtedly, machine age turns our living into a new age - the age of cities. The advancement of machine age, hence, leads the development whereas replaces the attention of nature.

The theme of project aims to recapture the sense of nature, to memorize and enhance the alternative pace of seasons, and to explore the possibilities of expression of the beauty of seasons in our daily activities.

2.1 City - Architecture - Nature

Position of Architecture in the contemporary age

2.1.1 Interrelation between elements

Architecture - Nature

Man lived in nature (cave). Man built the first hut through imitation of nature (primitive hut).
Man designed the architecture in response to nature (vernacular architecture).

Architecture is the tool for human beings to cope with living with nature. Human builds to provide a stage of activities and protect us away from heat, rain, snow, and wind.

Architecture - City

Architecture form and organisation alter with the development of city. Multi-residential projects like Unite de Habitation and urban planning policies of million population cities have been carried out. Functionalism conquers the period.

The connection with nature is replaced by the technological comfort. Machine age permits man to overcome natural constraint and live in all regions nowadays.

City - Nature

City and nature sets the end of two sides. One competes with the other. The development of cities is at the expense of nature. Urbanisation is an irreversible trend to cope with in modern age.

Nature, is no more a isolated topic away from cities; but the study of possibilities of coexistence within cities.

City - Architecture - Nature

Turning into the contemporary age, city conquers and takes the leading role of development. The importance of nature, however, loses its ground. Nature is not an independent topic to work on, but transform into a new issue as nature within city. Could city coexist in harmony with nature? How could city coexist in harmony with nature? Architecture, bridges the dialogue between the city and nature.

2.1 Architecture, as an intermediate of city and nature

The envelope of architecture does not bound interior (man) from exterior (nature), but a connection.

Architecture frames and enhance hidden natural atmosphere within cities. It is a place of daily activities, a reflection of inhabitation; , and a venue for experiencing nature. Designing garden space provides stage of dialogue between man and man, as well as man and nature.

To bring nature into the project, users explore the passage of time and spatial through their activities within the unit.

t h e s i s
s t a t e m e n t

3.1 Glaston Bachelard - The Poetics of Space

An analysis of status of nature within city building

"...the last rays of a setting sun, a full harvest moon, the burst of green buds as winter turns to spring, the long day-lit hours of summer, the clean smell of rain-drenched air... our bodies and minds overcome with the fatigue of day-to-day living. We nevertheless crave this link with our natural surroundings, longing for ways to weave meaning into places we inhabit...our home is the corner of the world..."

Glaston Bachelard, *The Poetics of Space*

3.1.1 Nature - object : Sharing of experience

Living in a vertical housing tower, I had experienced limited shots of the quoted scenery. The scenery, however, does exist in everywhere, either in nature or developed cities. The current architectural type does not help to reinforce the presentation of the nature. Its spatial organisation, on the other hand, bounded man's perception.

I am living in the building, but I am not inhabiting in it.

Having my meals in the dining room, sharing with families in the living room, working in front of my personal computer, reading on my bed..., the day-to-day living provides same experiences in various venue and repeats all year round.

City dwellers have no sense of passage of time and spatial relationship within the housing tower. Nature is a picture-like object.

3.1.2 Nature - Space : Concept of dwelling

Providing settlement to city dwellers is the unique achievement of the housing tower. Under functionalism, housing towers provide optimized number of housing units for the increasing population. Architecture separates our living pattern from the outside world.

Our activities echoes with the cycle of nature. Having breakfast in the sunrise pantry to celebrate the beginning of a day, daydreaming in the room of sky to boost creativity, sharing with families in the courtyard... Nature is not an object to be prayed, but a space to be participated. we live in seasons, seasons interplay with our living activities.

Stacking the housing unit into multi-floors, the sense of communal space within village has been overlooked. Courtyard is not merely the place of anticipation, but also a place of exchange and gather within neighbourhood and community. The space of participation extends from household to neighbourhood, neighbourhood to community, and community to city.

The design principle reflects and reacts to the natural cycle, so as to achieve the goal of "our home is our corner of the world."

a u t h o r ' s
r e v i e w

3.3 Jurgen Mayer Hermann - Condensation wall

An analysis of status of architecture through Hermann's design project

Reading the article, I was interested to the concept of condensation wall. This reveals my memory of the beauty of looking out from window in a rainy days. For a city dweller, it is impossible to frame the endless forest or grassland. The scenery recalls an experience of existence in nature within a house.

3.3.1 Condensation wall design

Technology provides the possibility of erecting a controlled living condition for users. The wall project, however, applied technology in the opposite approach. By imposing temperature difference on two sides of the room intentionally, the in-between glass panel is condensed and create visual interest.

"...steady improvement in building and climate technology has made it possible to establish a constant interior climate and insulate the human being from the effects of weather on architecture. The condensation wall suggested here constitutes a redefinition of conventional space production in the interest of a new level of comfort..."

"...condensation on an all-glass façade is thus intentionally employed as protection against visibility. Through the development of building technology. Climate effects otherwise considered undesirable become strategic means for the architectural design of interior and exterior, discretion and exposure..."

Jurgen Mayer Hermann, condensation wall Daidalous 1998 p.144

Regarding to the project, the designer insists a alternative understanding and presentation of comfort - the one more than the data figure of physical human comfort zone of human activities evaluated by the architectural design handbook. The project seeks the spiritual comfort - the evidence of existence. A piece of glass installation changes the atmosphere of the whole project.

3.3.2 Living | Inhabitation

Redefinition of architecture

Controlled living condition provides a place of living, but not a place of inhabitation.

Regarding to this fundamental, man invented and improve interpretation of architecture in pace of our experience. Space is the setting for human activities of living. Man utilized the space for what things they want to happen. A beauty piece of architecture carries the sense of inhabited. Beginning from the Nature, the ultimate goal of architecture is Man. City is the place of event.

We are not living in an experimental control room. Users explore the passage of time and variation of seasonal nature in occupying the building. Every moment is an experience of life. Architecture provides not merely a place of activity, but a place of inhabitation.

Architecture, being the medium between interior and exterior, works as a dialogue between city and nature.

a u t h o r ' s
r e v i e w

3.2 Tadao Ando : Nature - Architecture

An analysis of expression of nature and architecture

"...nature is an unprompted existence in our daily life. It is the best partner of our daily activities, working, shopping, gathering included; I intend to re-intervene nature into city and re-activate the counter-relationship..."

Masato Kawamukai, Tadao Ando: A dialogue between architecture and nature, p.9

"...architecture is integrated with nature, and space is seemingly adrift..."

Tadao Ando, Material Geometry and Nature, p.13

3.2.1 Importance of nature

Relationship with nature is one of the core concepts in Tadao Ando's project. Inspired by his personal experience, Tadao Ando had developed a set of own valuation towards expression of nature in his works.

Architecture, back to the basic, is reflection of human action in natural world. A good piece of work responds to nature condition. Vernacular architecture is always claimed as quality piece as the design fits nature and performs perfectly.

3.2.2 Nature and inhabitation

Courtyard is included in most of Ando's housing project. It works not only as lighting sources, as well as place of human activity - a separation of private space, and public communal space. No matter how complex the space is, how far the concept goes beyond, the origin belief is reason of inhabitation.

Architecture is the place of actions. Our living pattern and spatial organisation are strongly related. Experience of living generates the experience of nature. The thesis aims to provide a space for users to recapture the sense of existence in nature.

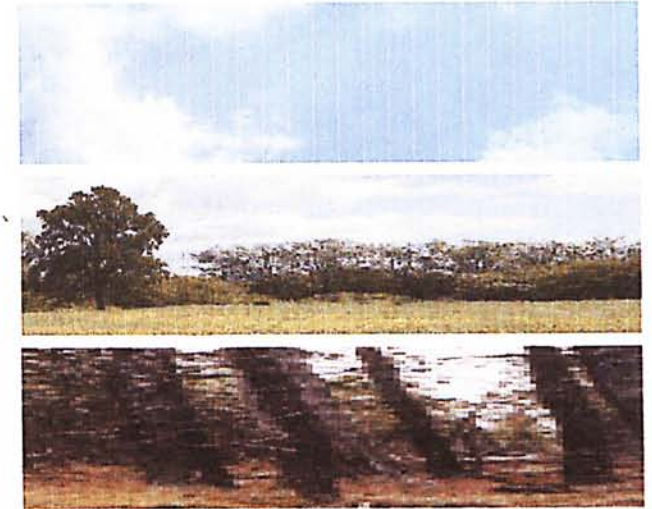
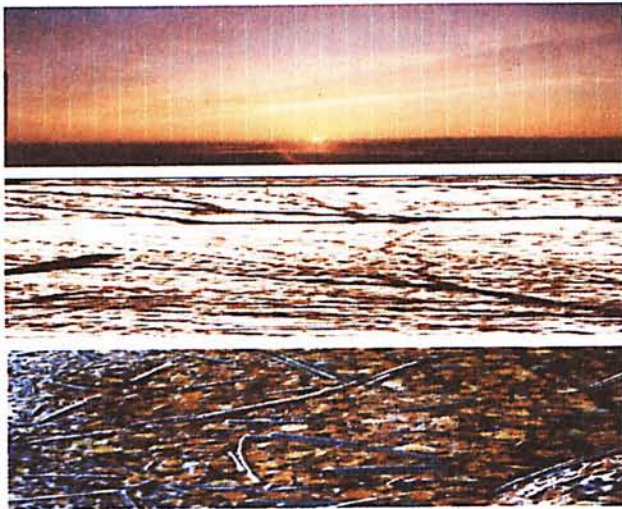
3.2.3 Abstraction of nature

"...perhaps one can call it order abstracted from nature: light, sky, and water that have been rendered abstract... architecture itself is made abstract by nature. Architecture comes to possess power and becomes radiant only when these three elements come together..."

Tadao Ando, Material Geometry and Nature, p.13

The interpretation of relation between nature and architecture goes a level beyond my thought. To Ando's understanding, architecture is the abstraction of nature - hence to capture the spirit, to initiate rather than to imitate the physical quality of nature.

a u t h o r ' s
r e v i e w



e x p r e s s i o n | e l e m e n t s

4.1 Natural elements

Unlike the Western countries, Hong Kong has no strong boundary within four seasons.

For the definition of seasons, I do not mean the four pieces of the year - spring, summer, fall and winter. In my understanding, season is not an independent element, but a sequence of change in time. The expression of seasons is reflected through changes of nature elements in all the place.

The beauty of nature comes from these tiny transformations between seasons. Architecture is designed to capture these scenery.

A sequence of rooms for sun, rain, earth, sky, branches, horizon, object, earth, water, ground help to explain the passage of cycle in a year.

d e s i g n
a p p r o a c h



j o u r n e y | n a t u r e

4.2 Nature, as a spot of relaxation

From 0900 to 1800

From monday to saturday

From january to december

Cycles repeat after cycles on daily, weekly, monthly, yearly basis.

Man, faced with dense city phenomenon everyday, needs nature. The working group faces tight living schedule, not mention the extra overtime log. it is infeasible for them to escape to nature, till long vacation. The project provides a spot of relaxation, incorporated with our daily activities. Living (dwelling) garden (nature) is the solution.

The garden is an escape from the hustle and bustle city, it provides space for city dwellers to release daily presure through enjoying nature. To facilities the idea of bringing nature into daily life, our activities have to be interplayed within the garden. In the living garden, one can experience the approach of nature at home, on the way to school, back fom the office... it is a place to explore / recapture the possibilities of nature and our living pattern.

d e s i g n
a p p r o a c h



j o u r n e y | c i t y

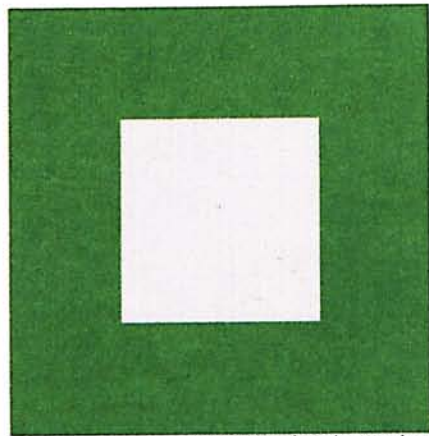
4.3 City, Hide and Seek

The expression of seasons in Hong Kong is not as distinct as the one in Western countries. Seasonal feature has been hidden in city in a relative subtle way. City dwellers can experience the approach of seasons through observation of the miniature seasonal features.

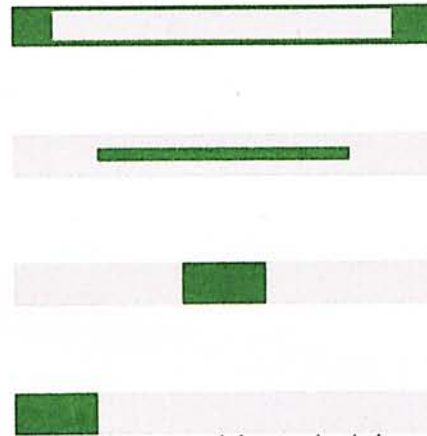
The image shows our way home in a typical housing estate in Hong Kong. Limited scenery of seasons can be observed in particular designed courtyard area (exterior space), but not extended to the building units (interior space). Building unit provides limited connection to the nature.

Season is hidden in city, and be discovered with our observation. The project tends to magnificates the hidden elements and draw people attention on seeking for the hidden seasons in a continuous path from city to building.

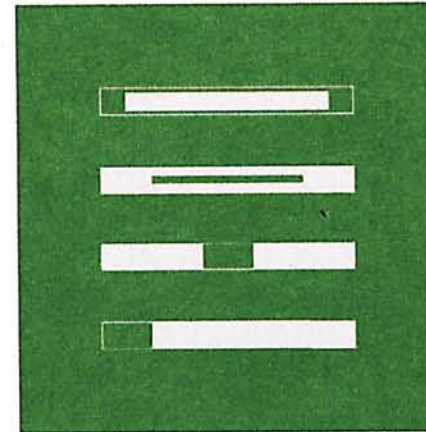
d e s i g n
a p p r o a c h



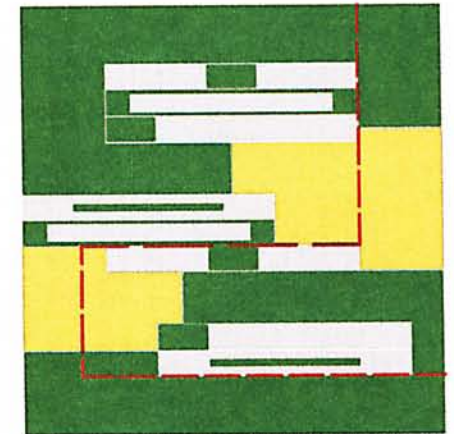
bring function to garden



bring garden to house



connection of garden and house



interplay of journey and space

l i v i n g | g a r d e n

4.4 Design Program

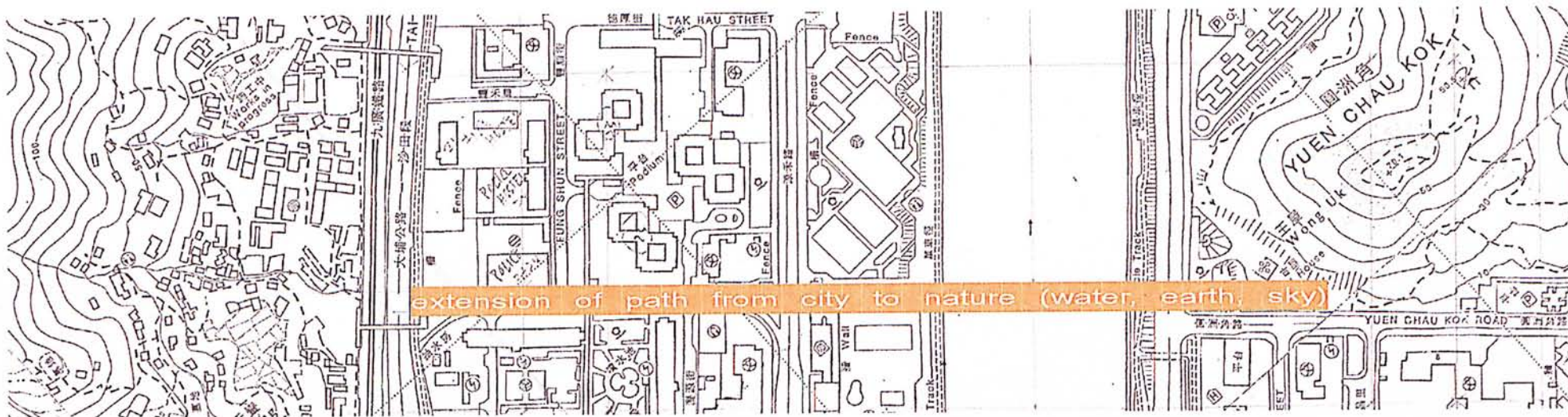
This thesis aims at searching possibilities for people to live in a naturalistic way of life within the dense urban context in hong kong. Nature is not merely the product of rural, but a part of city.

The organisation, thus, create a journey of nature exploration. We live in seasons, seasons interplay with our living activities. The project seeks an alternative interpretation of multi-dwelling project, other than typical dwelling tower in cities, in the city.

4.4.1 Living Garden

The idea of living garden is the coexistence of city and nature. Communal garden is applied in city, dwelling is applied in communal garden, household garden is applied to dwelling.





s i t e | s h a t i n

5.1 Site

The selected experimental site is in Shatin, across Shing Mun River.

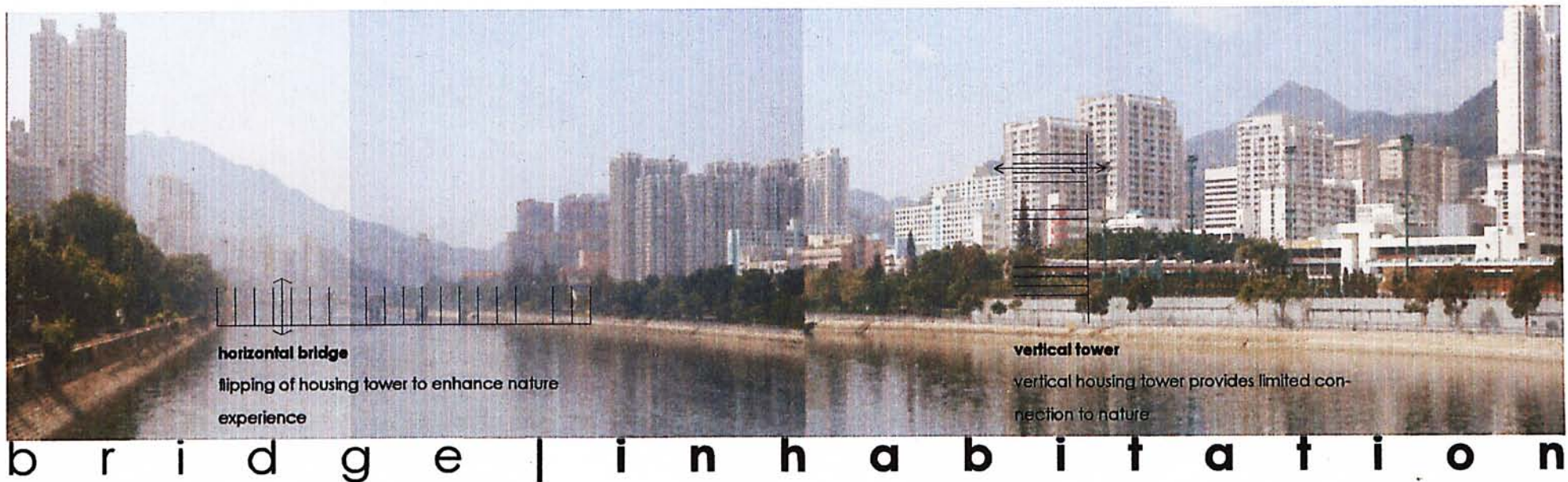
Nature elements of water, sky and earth, can be located adjacent to the site. Means of connection to various elements of nature may be explored in the area.

Along the west edge of riverside, a continuous edge of recreation and sports facilities, is provided. People, however, find no means of personal touch to the waterfront. The buildings by the side perform nothing more than visual connection. The design has not made full utilisation of the locational advantages.

Nature is within the city, but far away from human beings to enjoy. The project aims at finding possibilities to bring these elements to the city.

A housing bridge is proposed in the site. The inhabitable bridge works as stage of our activities in between the city and the nature.

p r e l i m i n a r y
d e s i g n



5.2 Dwelling pattern

5.2.1 Dwelling Tower

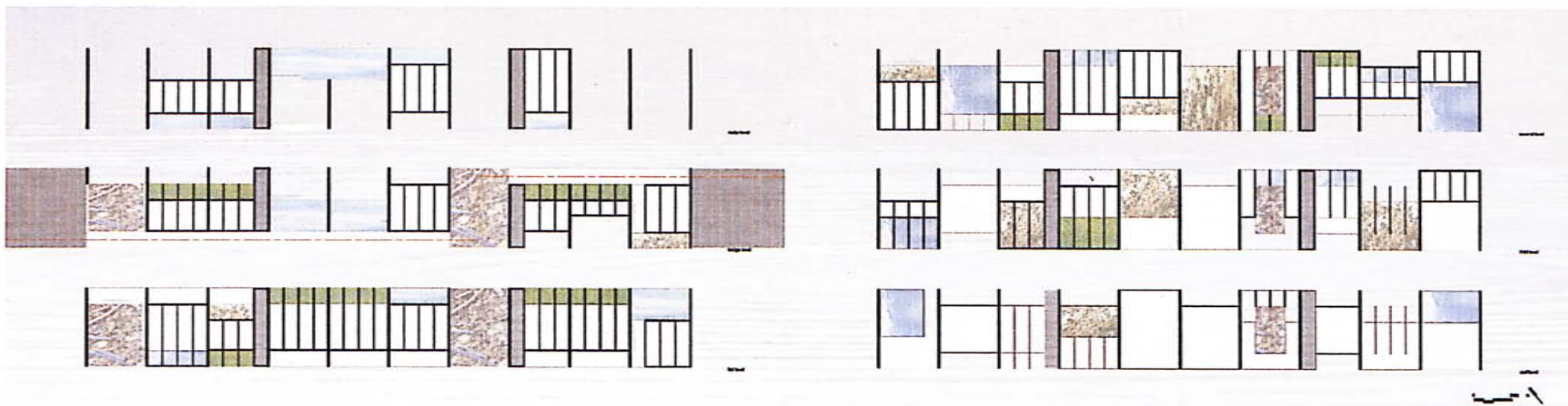
Being one of the densest cities, Hong Kong shares the characteristics of most urbanised cities. Housing estates are generally designed as tower type. The vertical organisation performs city living pattern - to provide quickness solution for optimize dwellers in a piece of land. The existing housing tower, however, encourages planar view and bounds the possibilities of connection to the nature.

5.2.2 Inhabitable bridge

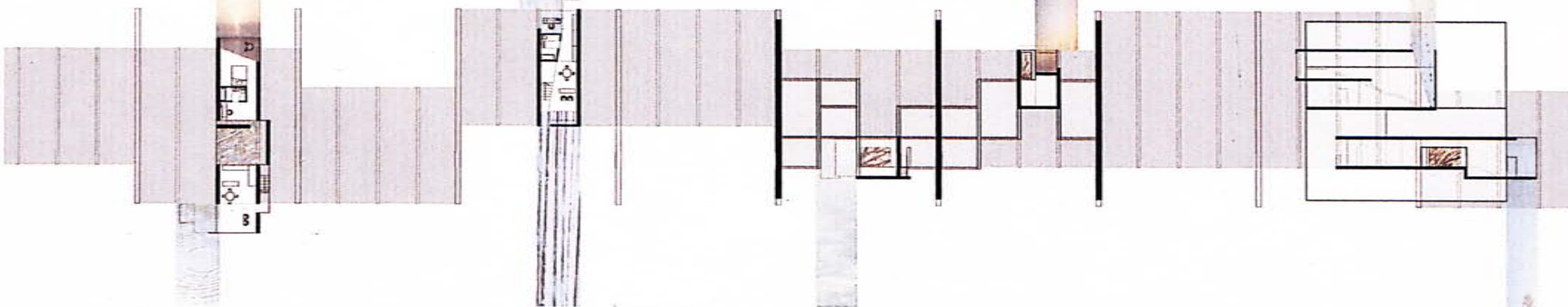
Dealing with the intention of bringing of nature in the building unit, the design turns

a typical vertical tower into a horizontal dwelling bridge over the water. Floor slab turns to wall element and allows greater feasibility for nature exploration.

p r e l i m i n a r y
d e s i g n



n a t u r e | c o m m u n i t y - h o u s e



p r e l i m i n a r y
d e s i g n

6.0 Creation of a nature response multi-units building model in city

Typical housing towers separate our living with nature. The thesis search for the solution of using architecture as a linkage between city and nature. The new building model is generated to achieve the conditions as listed:

6.1 Multi-units dwellings

Single houses unit maximises exposure to nature. The house unit, however, does not fit into the case of occupying huge population in urban core. The model has to be multi-storey projects in the city.

6.2 Connection to natural element

Nature, is incorporated into the building project. Users experience and explore the seasons and time passage through occupying the space. Living pattern response to nature. Users explore the possibilities of expression of the beauty of seasons in our daily activities.

6.3 Sequence of gardens

Sequence of gardens located within the building model. Garden for household, garden for neighbourhood, garden for community will be provided. It works not only as place for anticipation of seasonal concept, but also a social gathering area for the area.

6.4 Journey from city to nature

Connecting the walking path, the building model complete an everyday journey from city to nature experience. Nature is discovered in city, we appreciate and enjoy the beauty of the nature in the closest way.

The project is an experimental design. Following the observed solution, the findings can be

applied to other building types. Bridge of inhabitation, bridge of commercial, bridge of cultural ... can be set up along the riverside in the area.

1. sonnet quoted from <http://www.classicalmusic.about.com>
2. **The Japanese house : In space, memory, and language / Nakagawa Takeshi ; translated by Geraldine Harcourt** Tokyo, Japan : International House of Japan, 2005.
3. **Nature : course notes from the Collège de France / Maurice Merleau-Ponty ; compiled and with notes by Dominique Séglaard ; translated from the French by Robert Vallier** Evanston, Ill. : Northwestern University Press, 2003.
4. **Housing + single-family housing / Manuel Gausa** Basel ; Boston : Birkhäuser ; Barcelona : Actar, [2002]
5. **Nature and architecture / Paolo Portoghesi ; translated by Erika G. Young** Milan : Skira Editore ; London : Thames & Hudson, 2000
6. **Yue du Anteng Zhongxiong : jian zhu chuang zuo zuo pin lun shu / zuo zhe Wang Jianguo** Taibei Shi : Tian yuan cheng shi wen hua shi ye you xian gong si, 2000
7. **Anteng Zhongxiong / Liu Xiaobo** Tianjin Shi : Tianjin da xue chu ban she, 1999
8. **Ecological design handbook : sustainable strategies for architecture, landscape architecture, interior design, and planning / Fred A. Stitt, editor** New York ; London : McGraw-Hill, c1999
9. **Condensation Wall / Jurgen Mayer Hermann** Diadalous : 1998
10. **Living within the frame / Sabine Flach** Diadalous : 1998
11. **The Absent Wall and Other Boundary Stories / Linda Pollak** Diadalous : 1988
12. **Alfred Caldwell : the life and work of a Prairie school landscape architect / edited by Dennis Domer** Baltimore : Johns Hopkins University Press, c1997.
13. **Tadao Ando** Academy Editions : : London ; New York : St. Martin's Press, 1990.
14. **The life of forms in art / Henri Focillon** New York : Zone Books, 1989.
15. **Internationaler Jugendwettbewerb : Natur und Bauen = International youth competition : nature and architecture / Berthold Burkhardt ... [et al.] ; Textbeiträge, Robert Jungel ... [et al.]** Stuttgart : Institut für Leichte Flächentragwerke, 1980.
16. **The poetics of space / Gaston Bachelard ; translated from the French by Maria Jolas, foreword by Etienne Gilson** Boston : Beacon Press, 1969
17. **Architecture without architects : an introduction to nonpedigreed architecture / by Bernard Rudofsky** Academy Editions : : London, c1964
18. **The shape of time : remarks on the history of things / George Kubler** New Haven ; London : Yale University Press, c1962

1.0	thesis theme
1.1	city architecture nature
2.0	concept development
2.1	flipping the tower
2.2	approaching nature section
3.0	design programme
3.1	living in nature residential program
4.0	site selection
4.1	a nature walk in city - shing mun river, shatin
5.0	design development
5.1	design scheme 01 - wall definer project
5.2	design scheme 02 - section generated project
5.3	piazza design
6.0	final design
6.1	nature communal path
6.2	water/sky house unit
6.3	communal house units interaction

1.1 Nature, as a spot of relaxation

Man, faced with dense city phenomenon everyday, needs nature. The working group faces tight living schedule, not mention the extra overtime log. It is infeasible for them to escape to nature, till long vacation. The project provides a spot of relaxation, incorporated with our daily activities.

The garden is an escape from the hustle and bustle city, it provides space for city dwellers to release daily pressure through enjoying nature. To facilitate the idea of bringing nature into daily life, our activities have to be interplayed within the garden. In the living garden, one can experience the approach of nature at home, on the way to school, back from the office... It is a place to explore / recapture the possibilities of nature and our living pattern.

The expression of seasons in Hong Kong is not as distinct as the one in Western countries. Seasonal feature has been hidden in city in a relative subtle way. City dwellers can experience the approach of seasons through observation of the miniature seasonal features.

Living in a developed city as seen in Hong Kong, limited scenery of nature can be observed in particular designed courtyard area (exterior space), but not extended to the building units (interior space). Building unit provides limited connection to the nature.

Nature is hidden in city, and be discovered with our observation. The project tends to magnify the hidden elements and draw people attention on seeking for the hidden seasons in a continuous path from city to building.

1.2 Architecture, as an intermediate of city and nature

City - Architecture - Nature

Turning into the contemporary age, city conquers and takes the leading role of development. The importance of nature, however, loses its ground. Nature is not an independent topic to work on, but transform into a new issue as nature within city. Could city coexist in harmony with nature? How could city coexist in harmony with nature? Architecture, bridges the dialogue between the city and nature.

The envelop of architecture does not bound interior (man) from exterior (nature), but a connection.

Architecture frames and enhance hidden natural atmosphere within cities. It is a place of daily activities, a reflection of inhabitation, and a venue for experiencing nature. Designing garden space provides stage of dialogue between man and man, as well as man and nature.

To bring nature into the project, users explore the passage of time and spatial through their activities within the unit.

t h e s i s
t h e m e

2.1 Flipping the city tower

Vertical tower

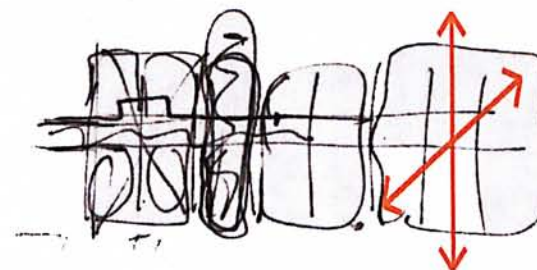
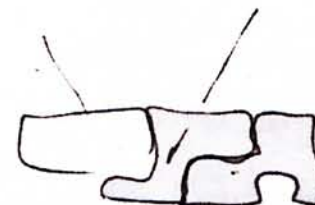
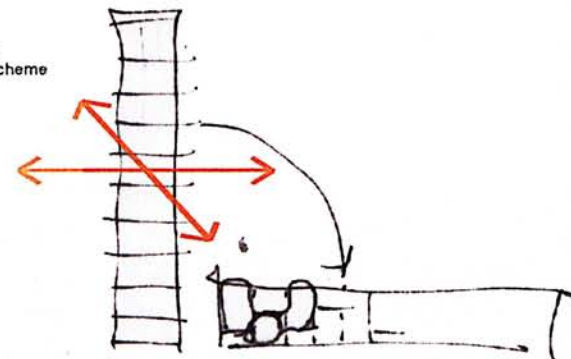
Like most of the developed city, tower is the commonest type of buildings in Hong Kong. Typical floor is defined by repetitive floor slab. The floor slab allows planar connection but blocks vertical connection between floors.

Horizontal wall

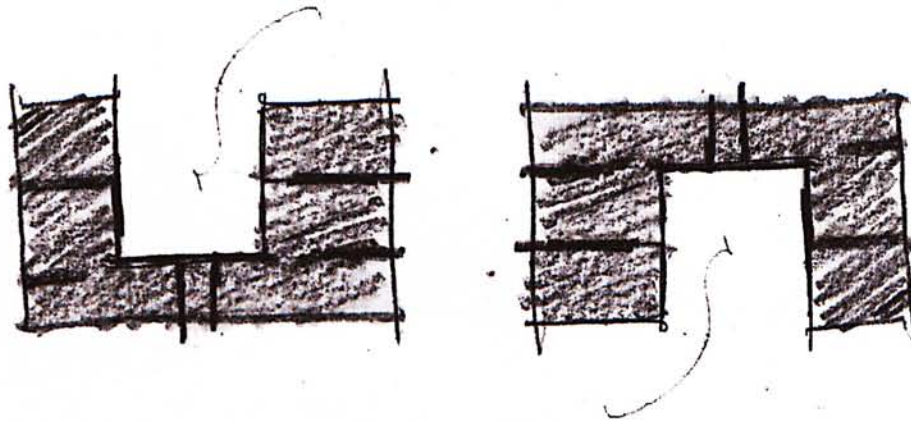
By turning 90 degree, the vertical tower becomes horizontal wall sitting on the ground. The defining floor slab turns into defining wall which allows both planar and vertical connection to the surrounding. Optimal degree of connection to nature is achieved.

first conceptual sketch

- 01 | flipping the tower
- 02 | units open up to nature
- 03 | wall generated design scheme

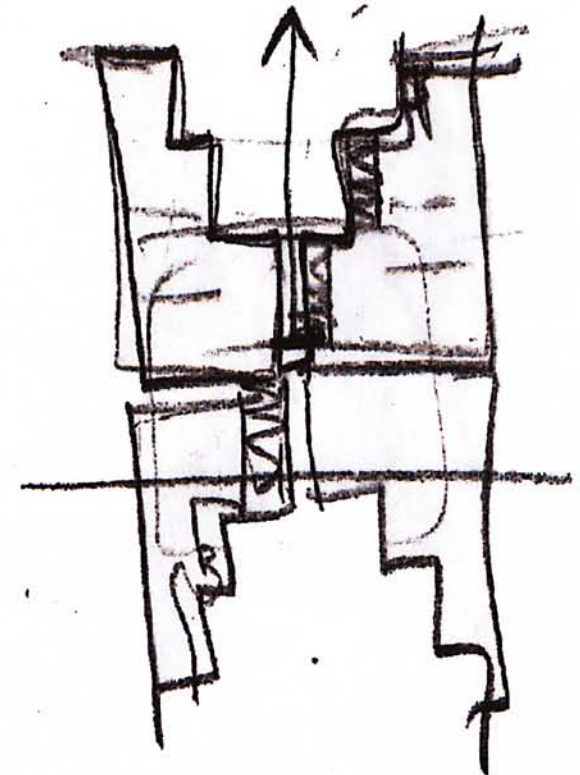


c o n c e p t
d e v e l o p m e n t



conceptual sectional sketch

- 01 | vertical courtyard house to sky
- 02 | vertical courtyard house to earth
- 03 | combined sectional courtyard house



2.2 Approaching nature section

Regarding to the high land price in city area, multi-storey building is necessary. To enhance the contact with nature of every floor, funnel-shaped section is purposed. the solid area is inhabited space whereas the void one is courtyard space. The upper portion approaches to sky whereas the lower one approaches earth (sitting on ground) / water (sitting by waterfront and river).

3.1 living in nature

residential program

This thesis aims at searching possibilities for people to live in a naturalistic way of life within the dense urban context in hong kong. Nature is not merely the product of rural, but a part of city.

Living Garden

Residential project is purposed. The idea of living garden is the coexistence of city and nature. Home is the basis of living. Living in a nature dwelling, residents explore and experience nature through daily activities. From city to nature, they enjoy a nature path daily on their way home from school or their work.

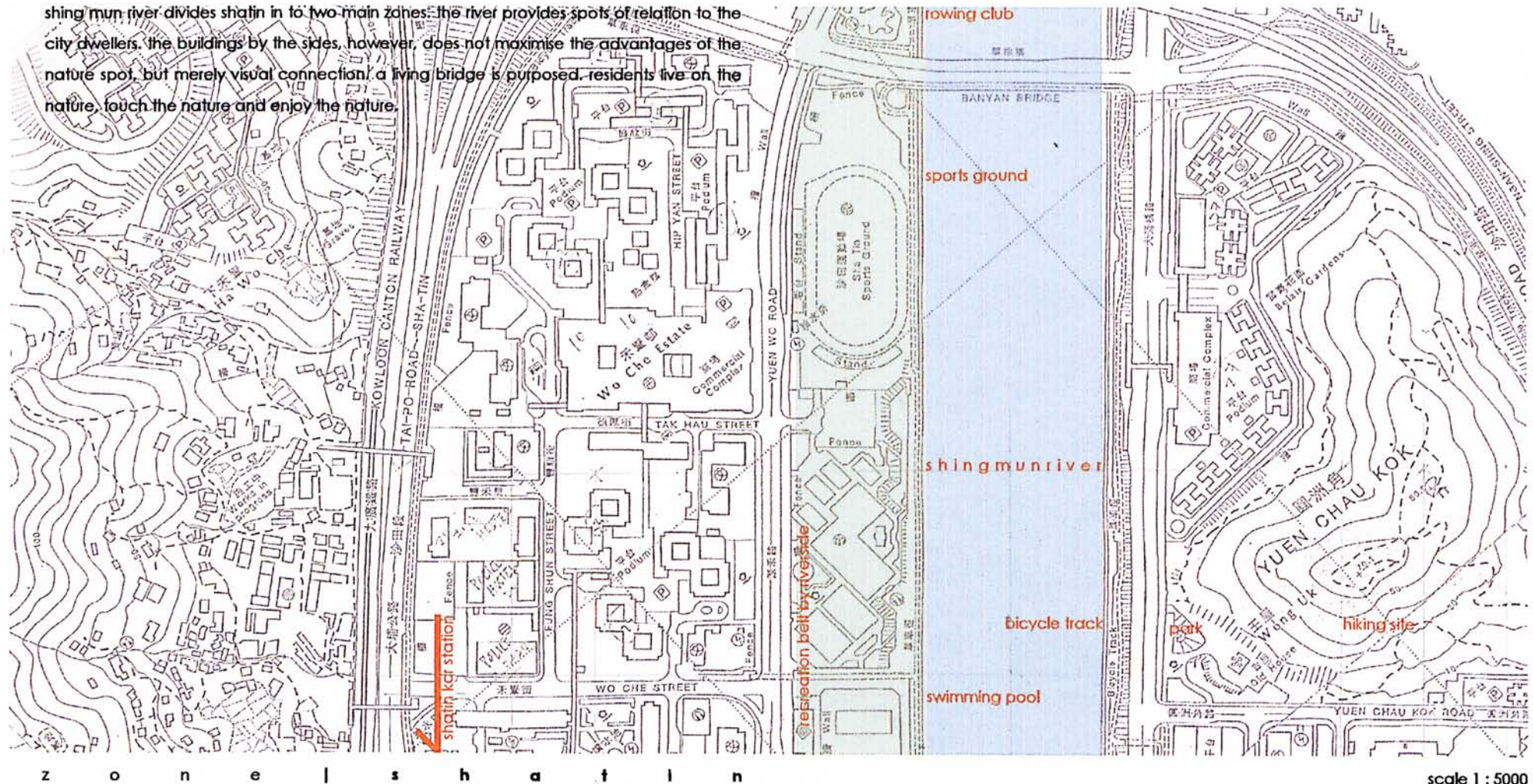
Vertical courtyard

Living in a typical courtyard house, courtyard is the design core of concept of spatial organization. Users enjoy nature in daily activities once they pass the courtyard. Sharing the same idea, The thesis project provides courtyard to each unit, vertical circulation connects the main space and courtyard in response to the concept of "flipping the city tower". Vertical courtyard provides greater possibilities for dwellers to keep in touch with the nature.

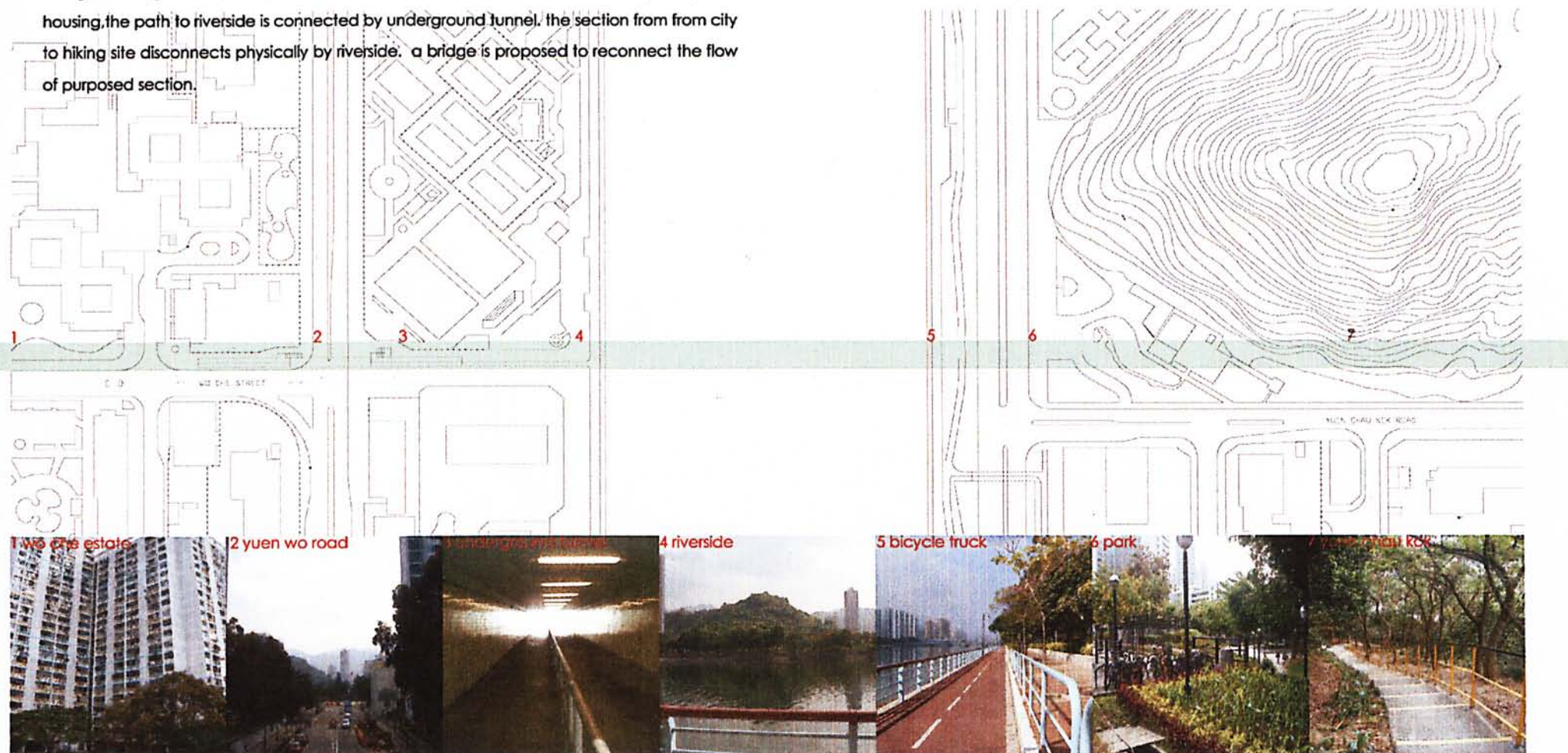
The project provides a new house type, as well as another living pattern of living to the dwellers. City dwellers enjoy nature. They live in city, at the same time, they live in nature.

4.1 a nature walk in city

shing mun river divides shatin in to two main zones. the river provides spots of relation to the city dwellers. the buildings by the sides, however, does not maximise the advantages of the nature spot, but merely visual connection. a living bridge is purposed. residents live on the nature, touch the nature and enjoy the nature.



along the shing mun riverside, section of wo che street is selected. connecting the public housing, the path to riverside is connected by underground tunnel. the section from city to hiking site disconnects physically by riverside. a bridge is proposed to reconnect the flow of purposed section.



s e c t i o n | w o c h e s t r e e t

scale 1:3000

s l t e
s e l e c t i o n

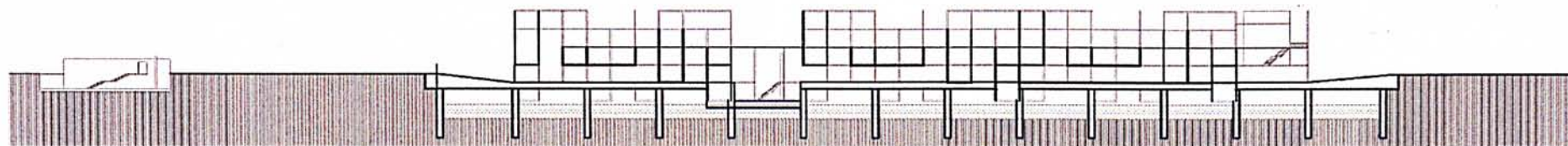


architecture frames and enhances hidden natural scene in cities. users live in city, coincidently, users live in nature. **architecture**, bridges the dialogue between the city and nature.

s l t e
s e l e c t i o n

5.1 s c h e m e 0 1 | w a l l d e f i n e r p r o j e c t

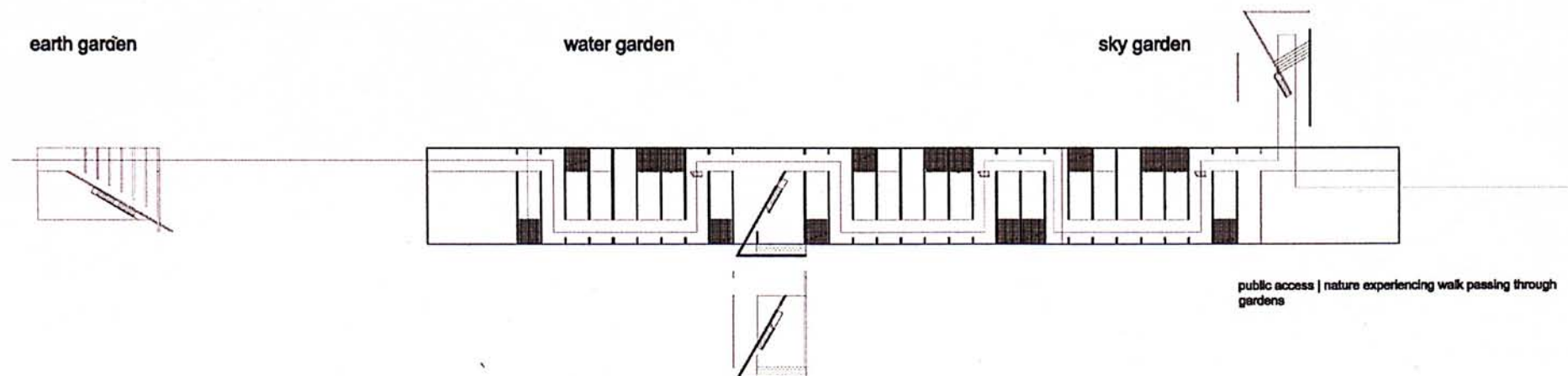
wall defined houses - more accessible to nature elements



earth garden

water garden

sky garden



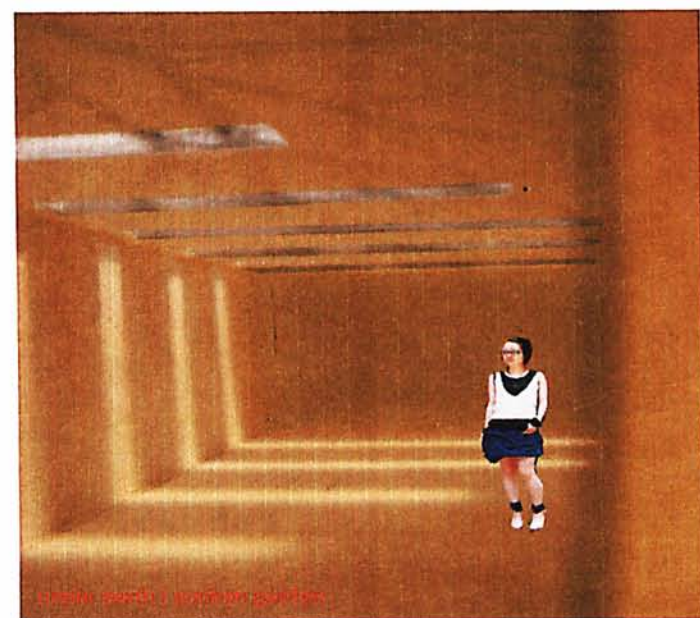
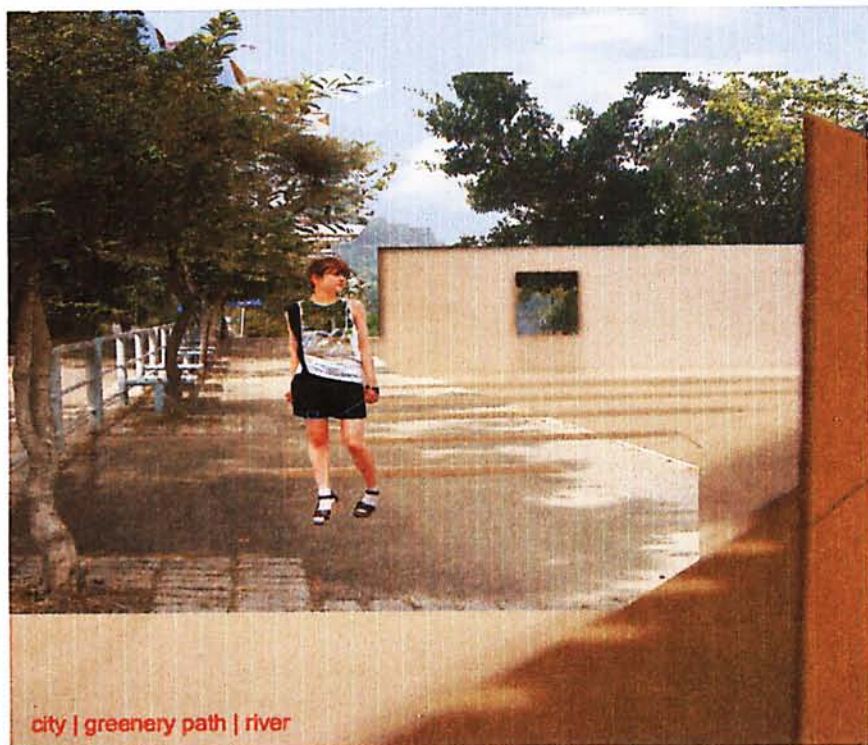
public access | nature experiencing walk passing through gardens

Following the idea of "flipping the city tower", the floor slab turns into wall in the project. Parallel defining wall, concept of the scheme, frames 4m grid of the house unit. Inclined wall across units is designed to indicate communal nature garden.

scale 1 : 1000

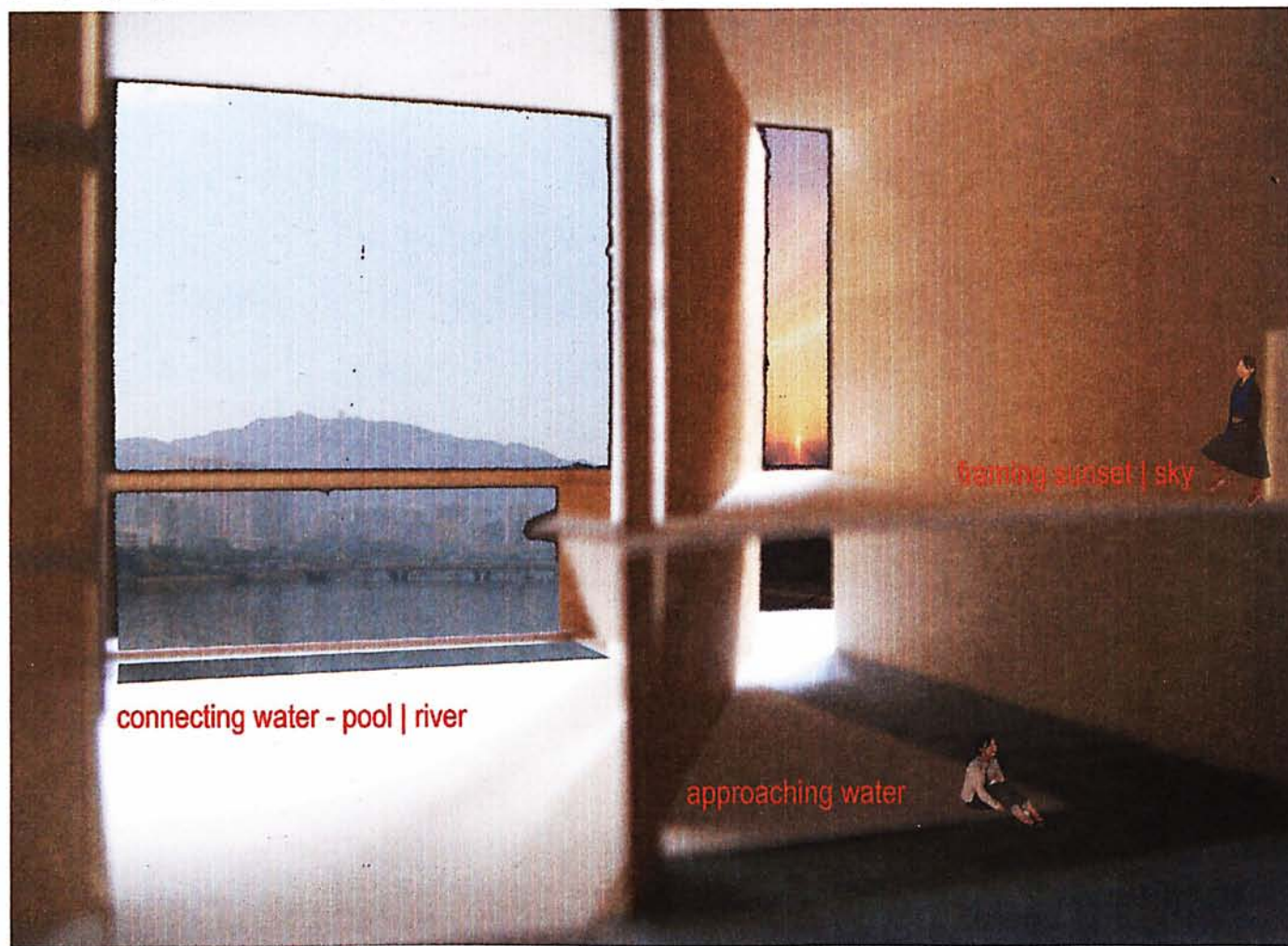
d e s i g n
d e v e l o p m e n t

c o m m u n a l g a r d e n | e a r t h



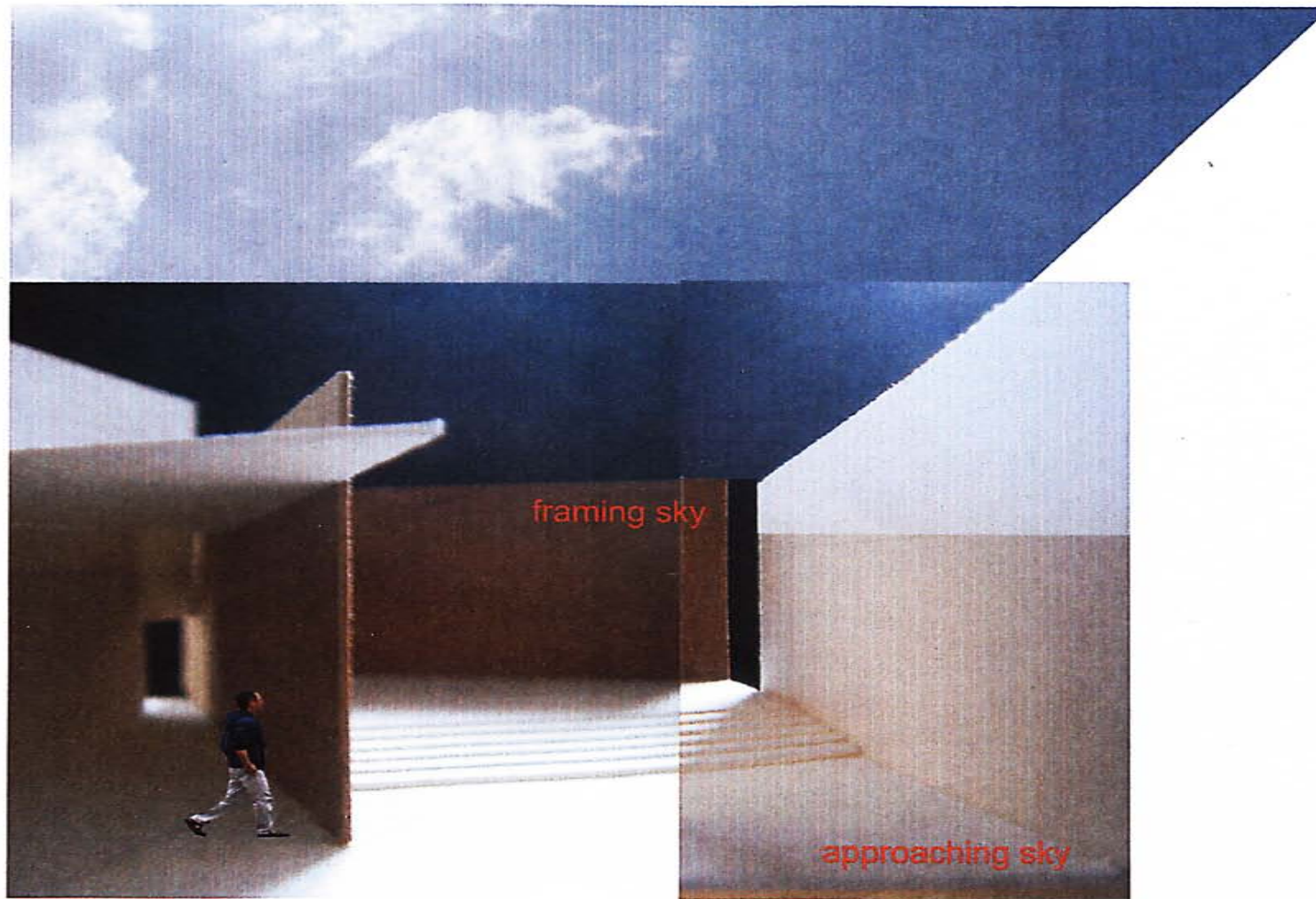
d e s i g n
d e v e l o p m e n t

c o m m u n a l g a r d e n | w a t e r



d e s i g n
d e v e l o p m e n t

c o m m u n a l g a r d e n | s k y

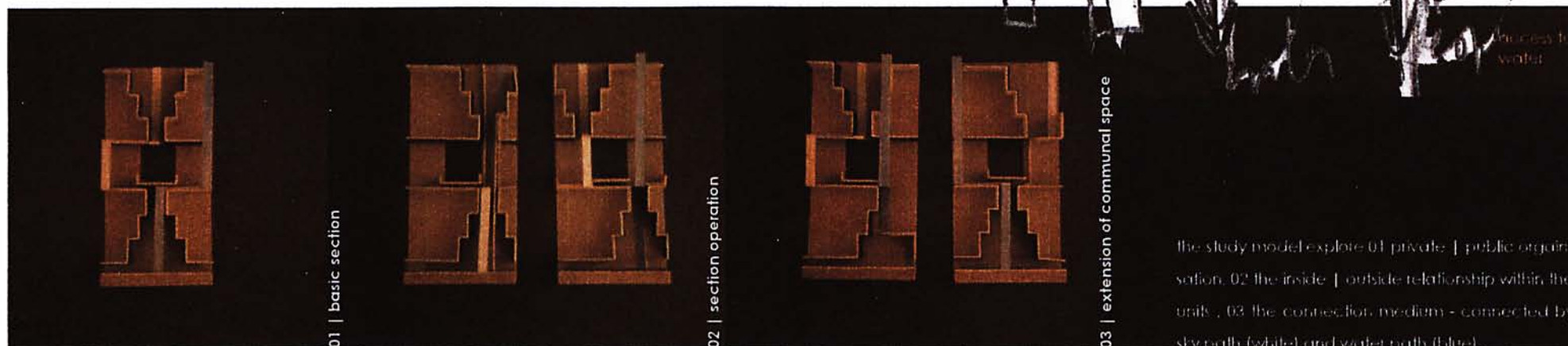


d e s i g n
d e v e l o p m e n t

5.2 s c h e m e 0 2 | s e c t i o n g e n e r a t e d p r o j e c t

Sectional diagram

Putting the bridge program across shing mun river into the conceptual sectional diagram. A public access bridge is designed at the mid of the funnel. The area above bridge is the sky approaching unit. The bottom one is water approach unit. The bridge floor is designed as a communal path for bringing users from riverbanks to nature. Communal sky terrace and water garden is connected to the communal path.



Modular system

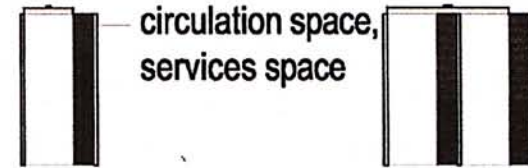
4m module is derived from the flipping concept. Following the grid, vertical service core is attached to each module. Double module is introduced to increase space variation for functions that take larger space, such as family unit and communal garden.

Public | private access

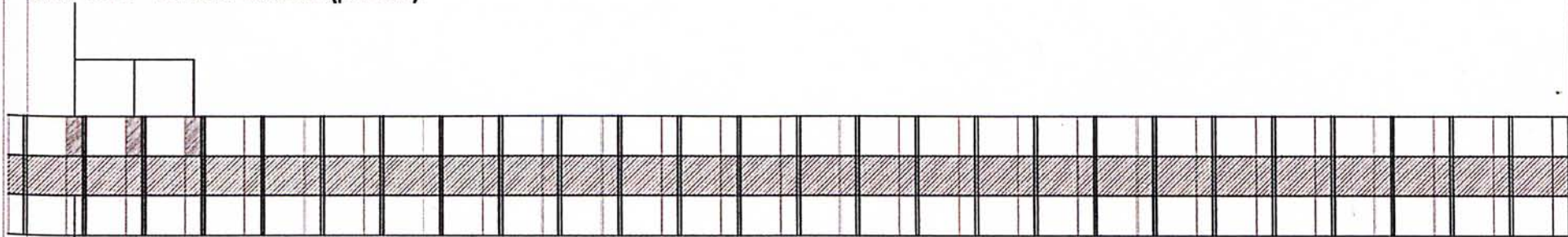
The allocation of public and private access is separated. Bridge access (horizontal path) is public route. Dwellers approach the house unit through vertical circulation.

1 module -
single house unit

2 modules -
double house unit /
communal space



stair core - vertical access (private)

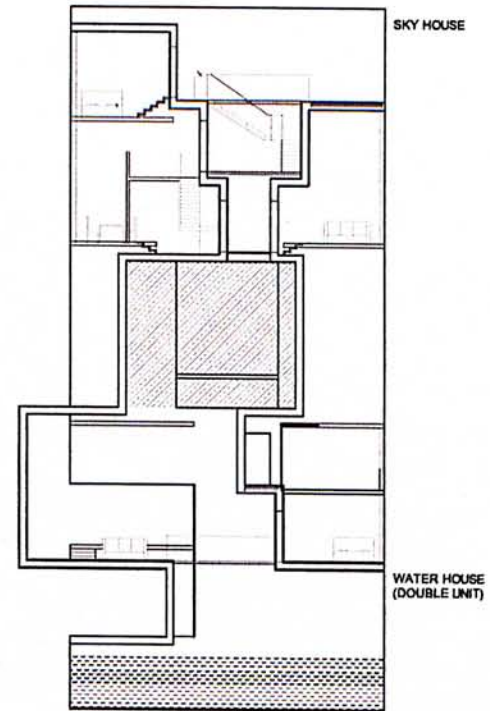
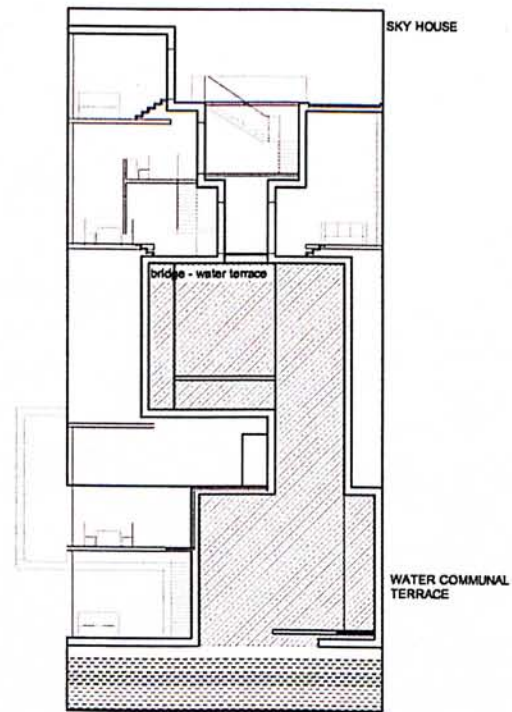
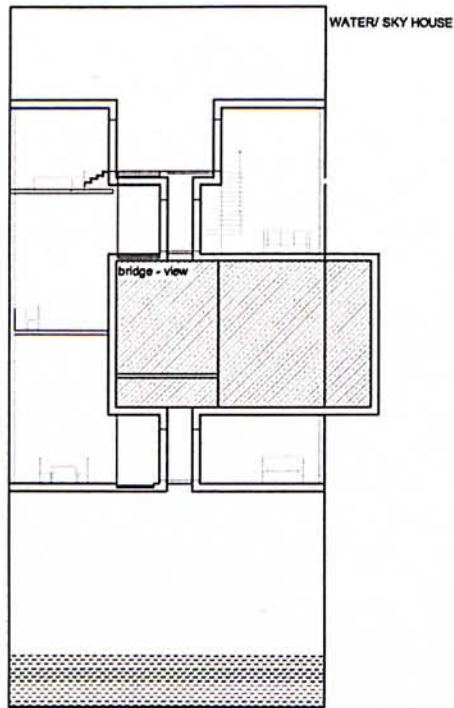


bridge -horizontal access (public)

d e s i g n
d e v e l o p m e n t

Study of walls

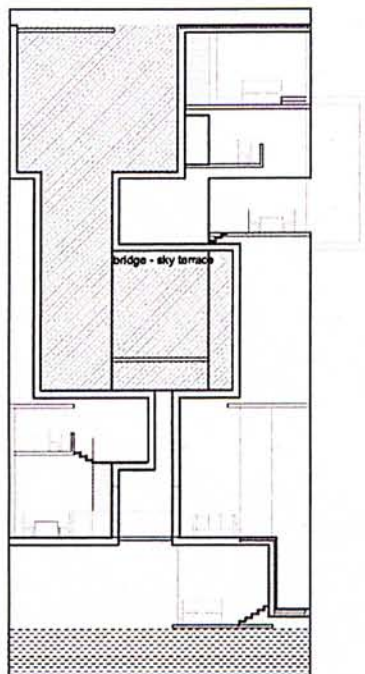
Operation of the wall in section is tested. Through operation of walls, various space is created. Communal sky terrace and water garden and various house types are formed through operation process.



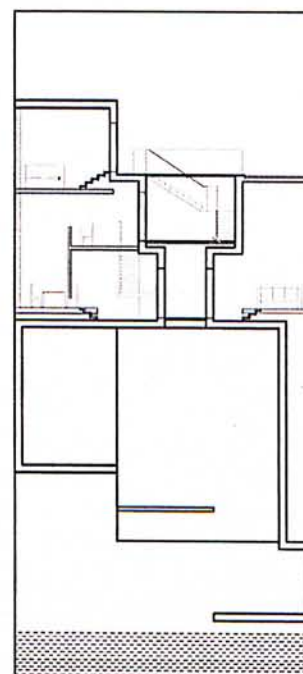
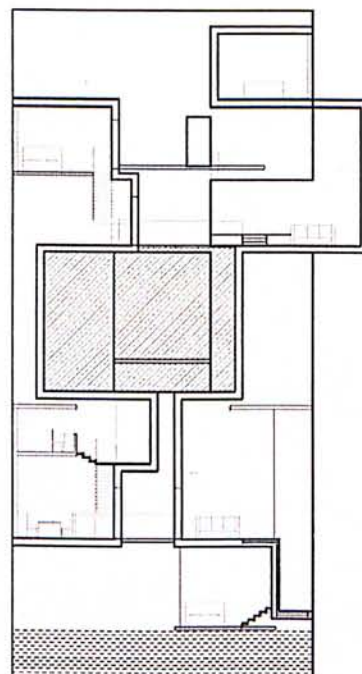
scale 1 : 300

d e s i g n
d e v e l o p m e n t

SKY COMMUNAL
TERRACE

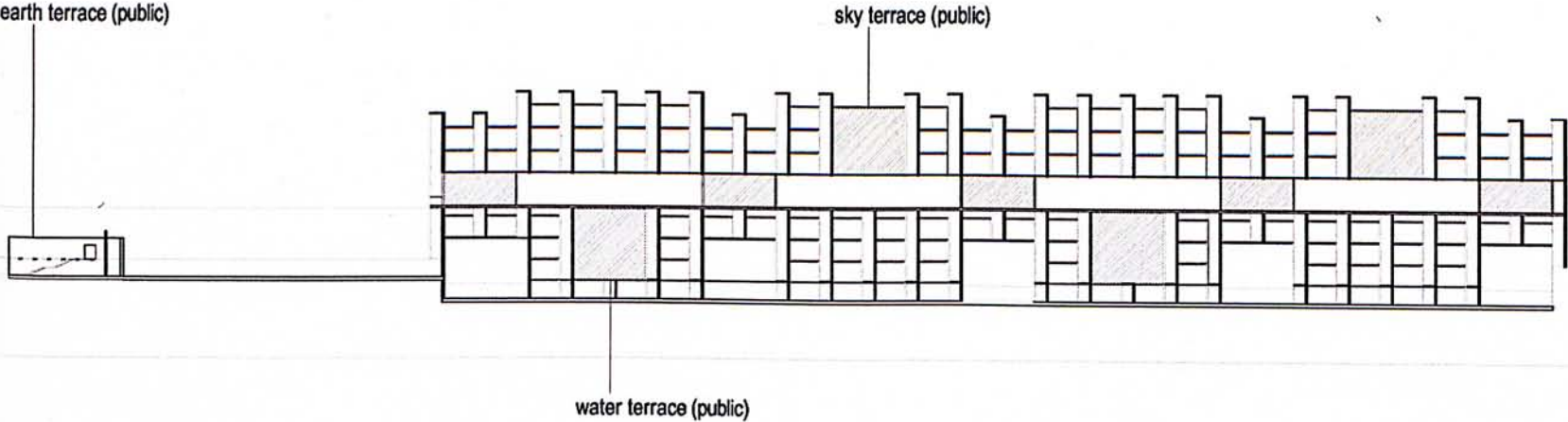


SKY HOUSE
(DOUBLE UNIT)



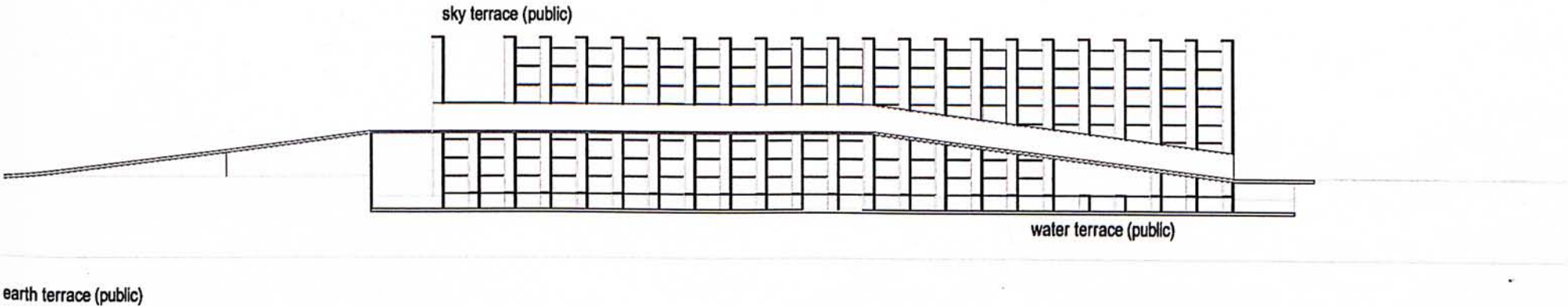
scale 1 : 300

d e s i g n
d e v e l o p m e n t



scale 1 : 1000

d e s i g n
d e v e l o p m e n t

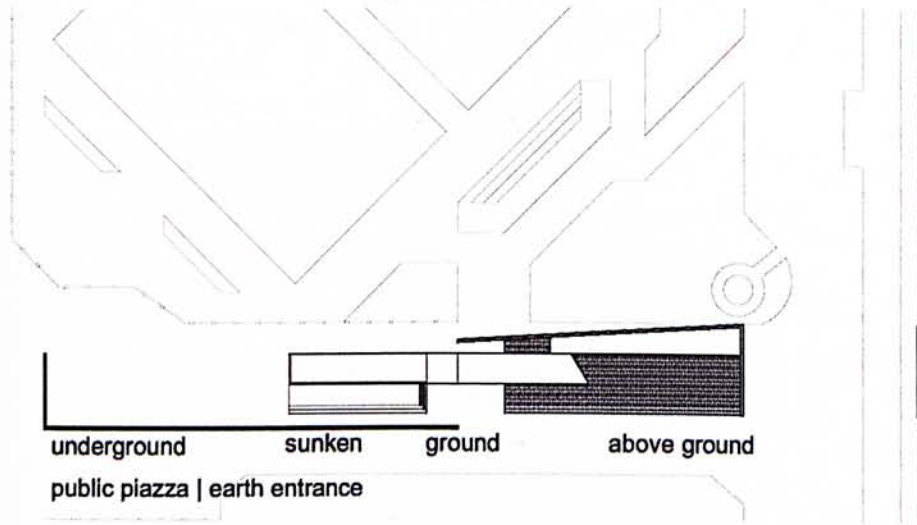


scale 1 : 1000

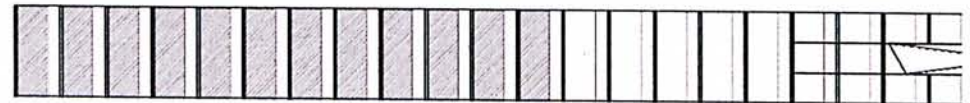
d e s i g n
d e v e l o p m e n t

Design of earth terrace

Connecting the residential zone to the riverbank, tunnel is imposed in the site currently. Incoorporating the tunnel as part of the communal path, earth terrace is purposed as the entrance of the bridge. The piazza provides various operation of relationship to the ground. From the tunnel (under the ground), users explore earth relation to through climbing the bridge.



G/F



scale 1 : 1000

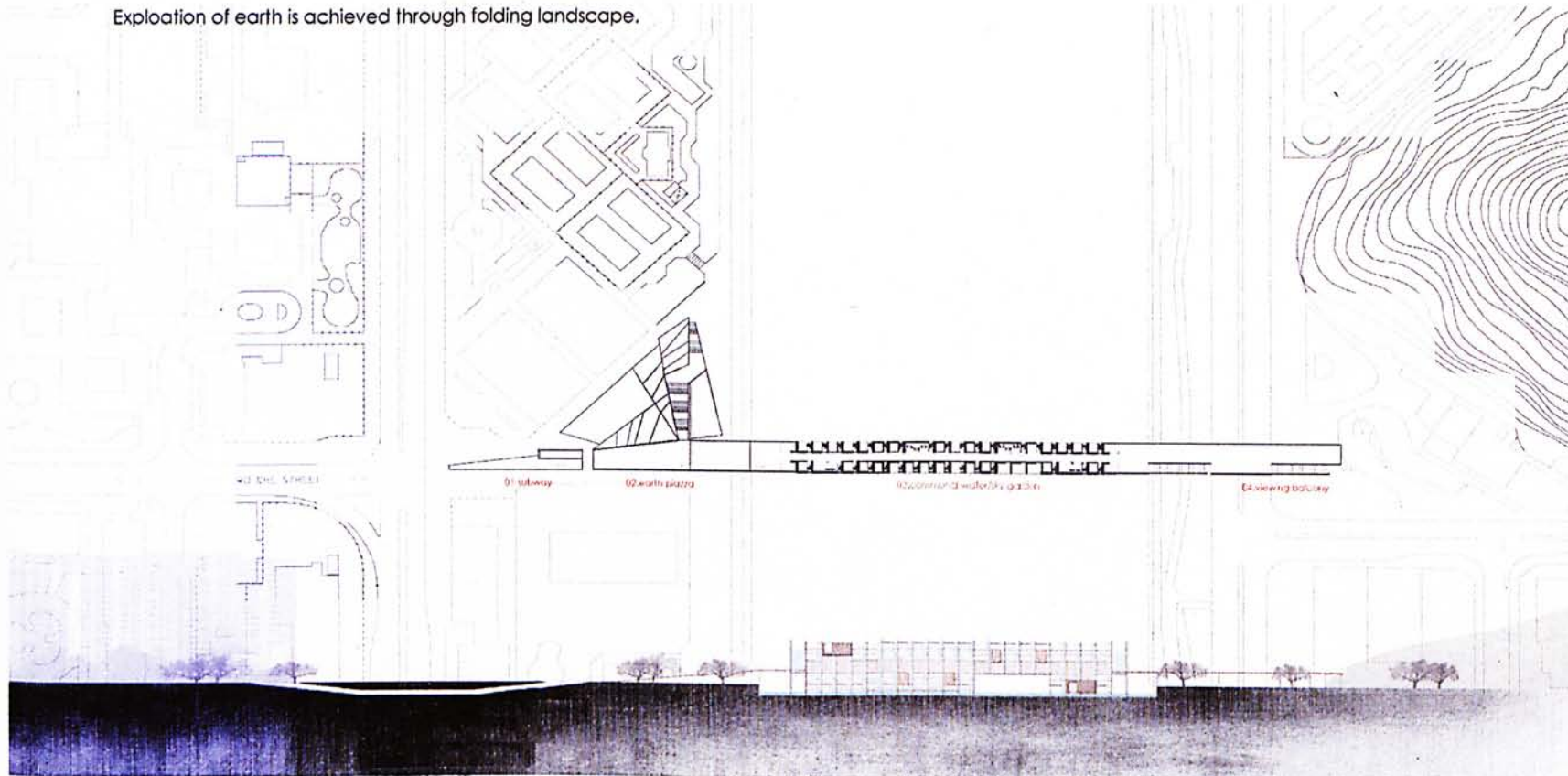
d e s i g n
d e v e l o p m e n t

6.1 final design | communal nature walk

Design of earth terrace

Earth piazza is designed in a larger scale for acting both as the entrance of bridge, the communal nature walk. It also serves as a part of the recreational belt, tuck shop, stage of the sport ground, resting place is provided in the folding landscape piazza.

Exploitation of earth is achieved through folding landscape.

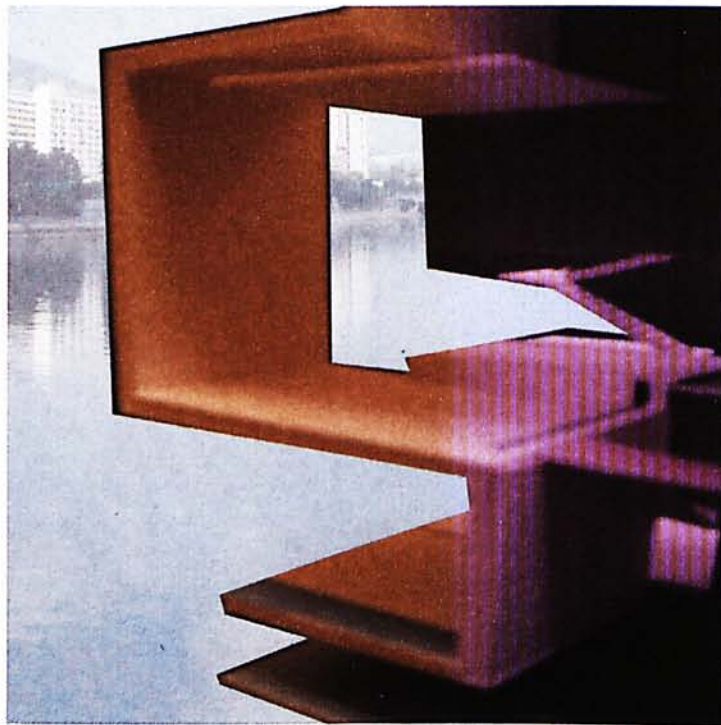


f i n a l
d e s i g n

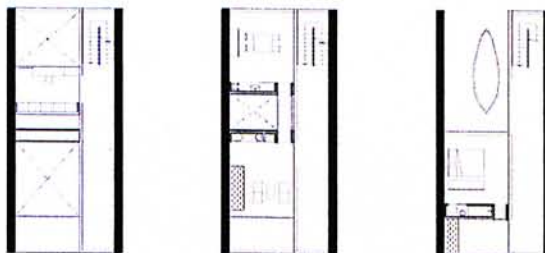
h o u s e u n i t | w a t e r d e s i g n

Four types of housing is designed in the project.

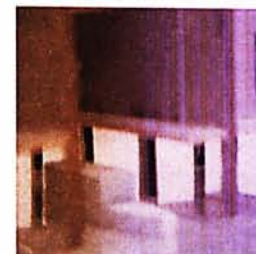
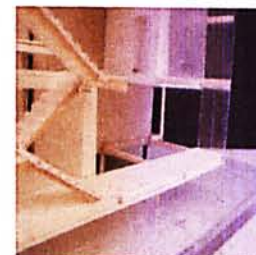
Focus on the water garden with pier and sky terrace respectively, spacial movement is response to the courtyards to achieve living in nature.



water single unit - 12 units



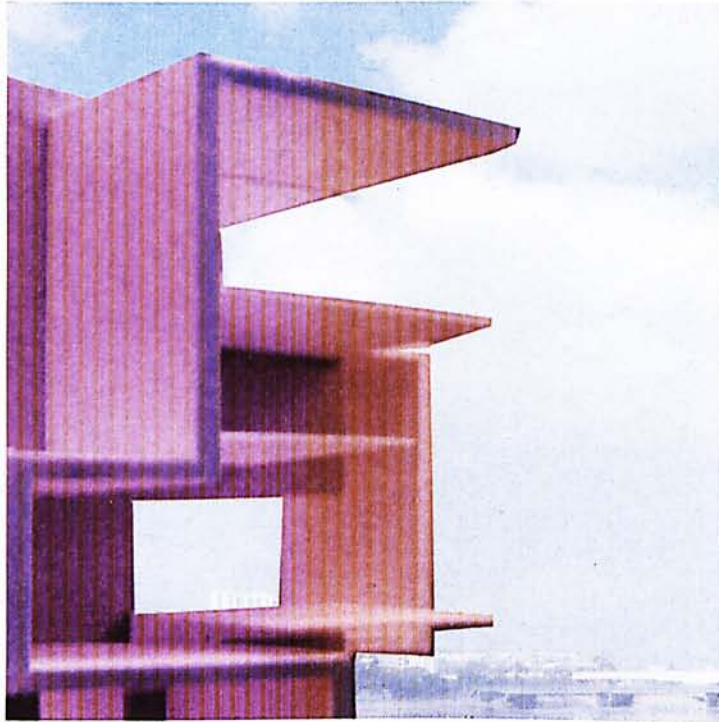
water double unit - 4 units



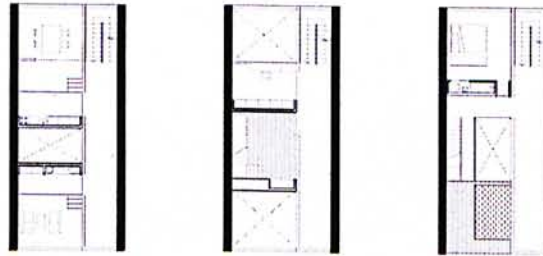
scale 1 : 400

w a t e r h o u s e
d e s i g n

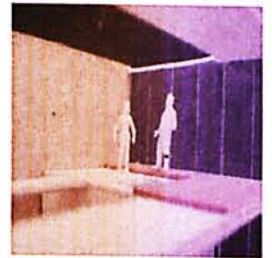
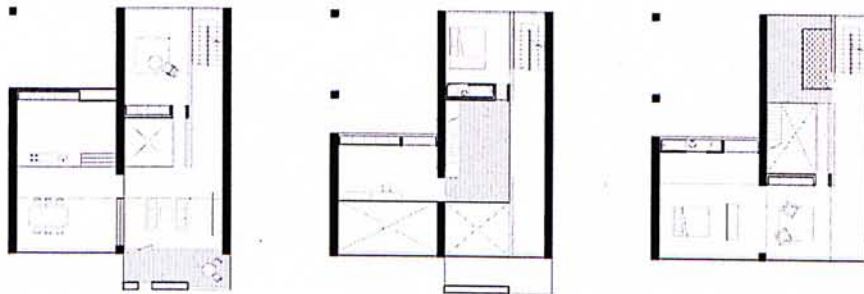
h o u s e u n i t | s k y d e s i g n



sky single unit - 12 units

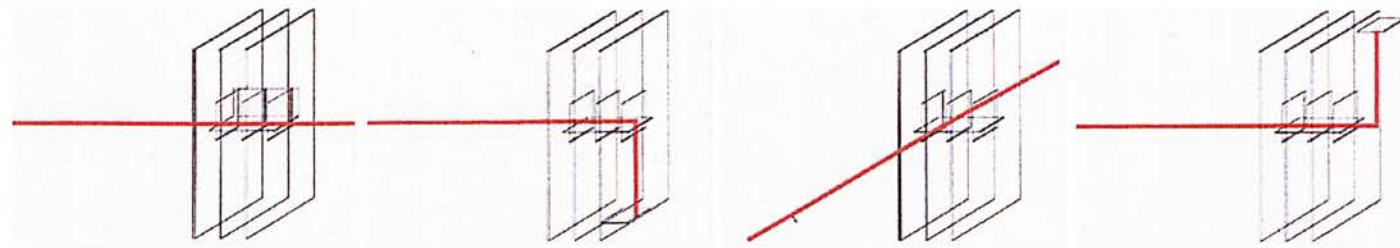


sky double unit - 4 units



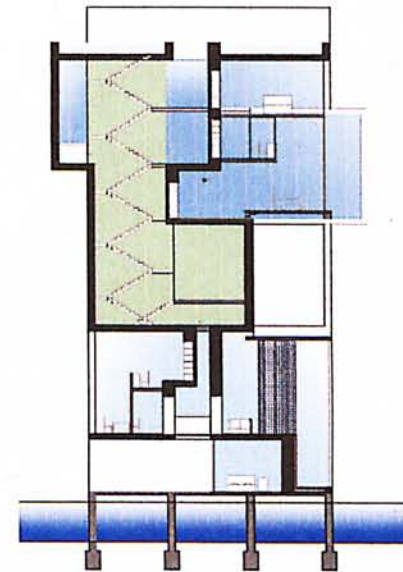
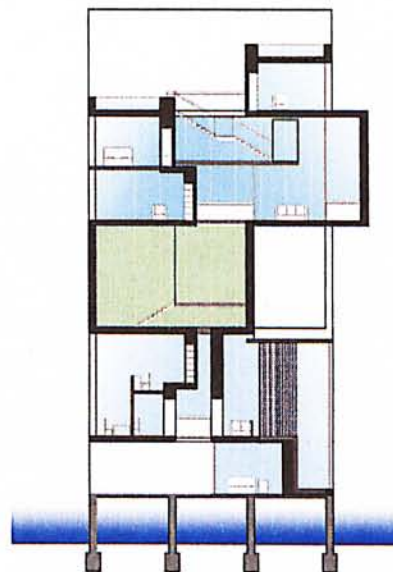
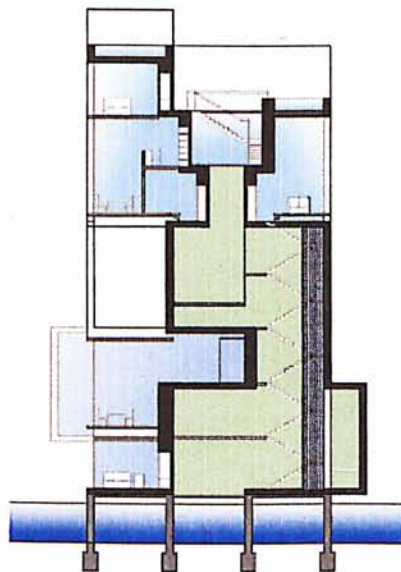
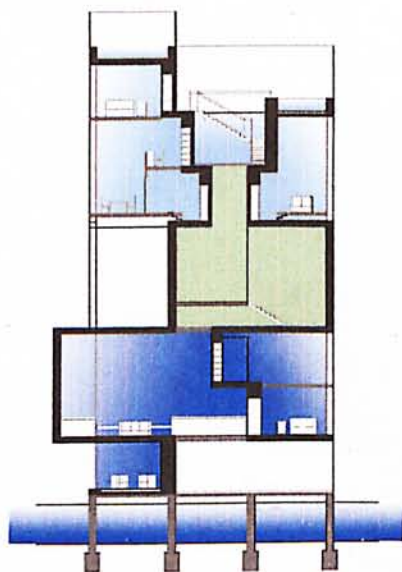
scale 1 : 400

s k y h o u s e
d e s i g n



operation of sectional walls -

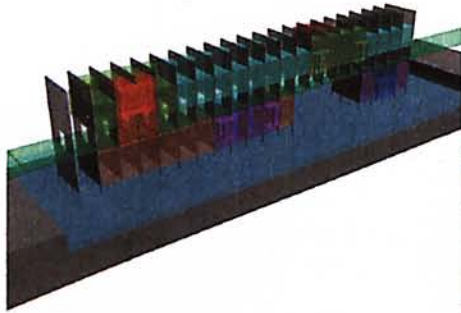
sky house, communal garden, water house formation



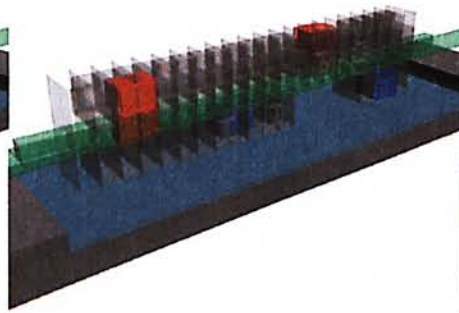
scale 1 : 400

f i n a l
d e s i g n

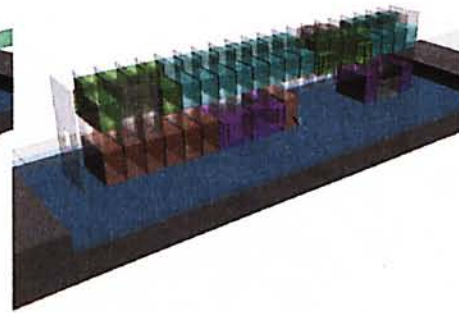
analysis of modules



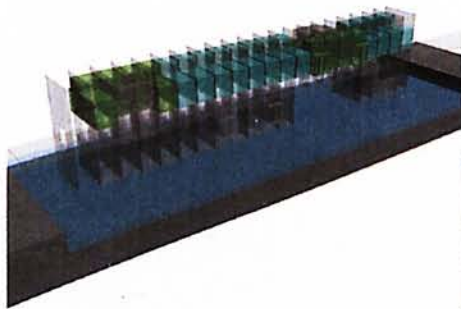
inhabitable bridge design



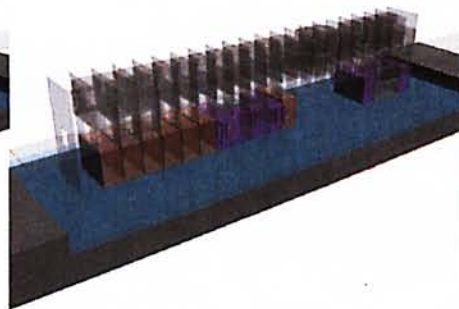
communal path and gardens



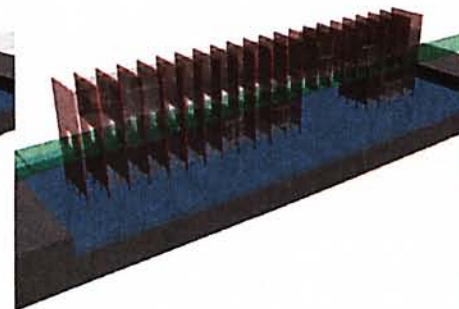
houses allocation



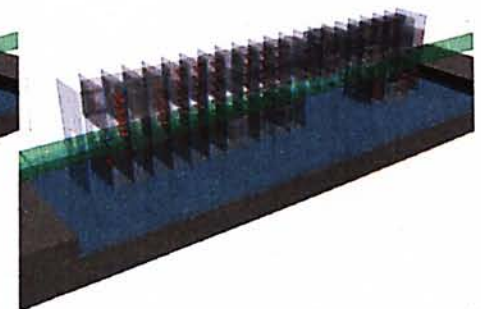
houses of sky



houses of water



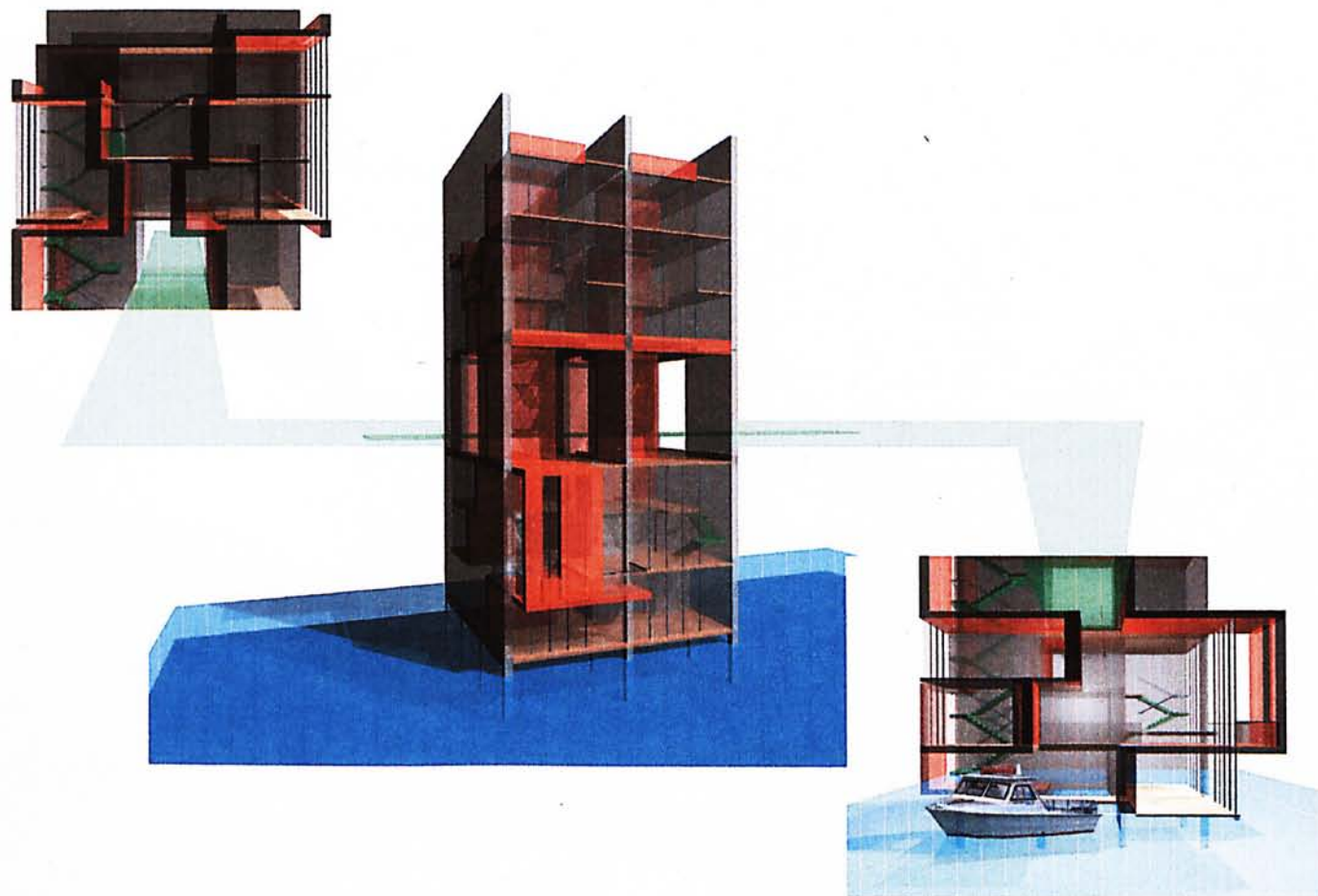
structure system



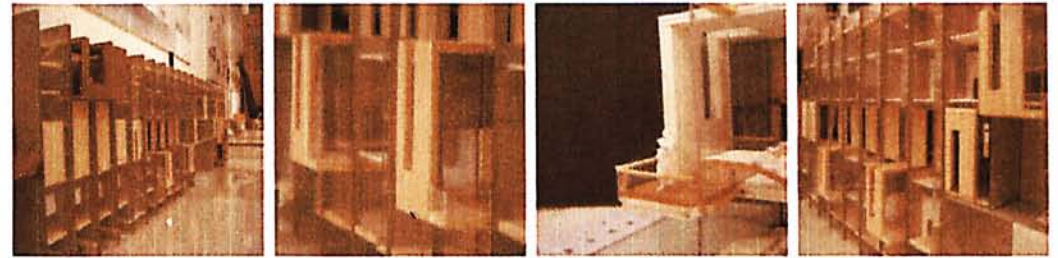
circulation system

f i n a l
d e s i g n

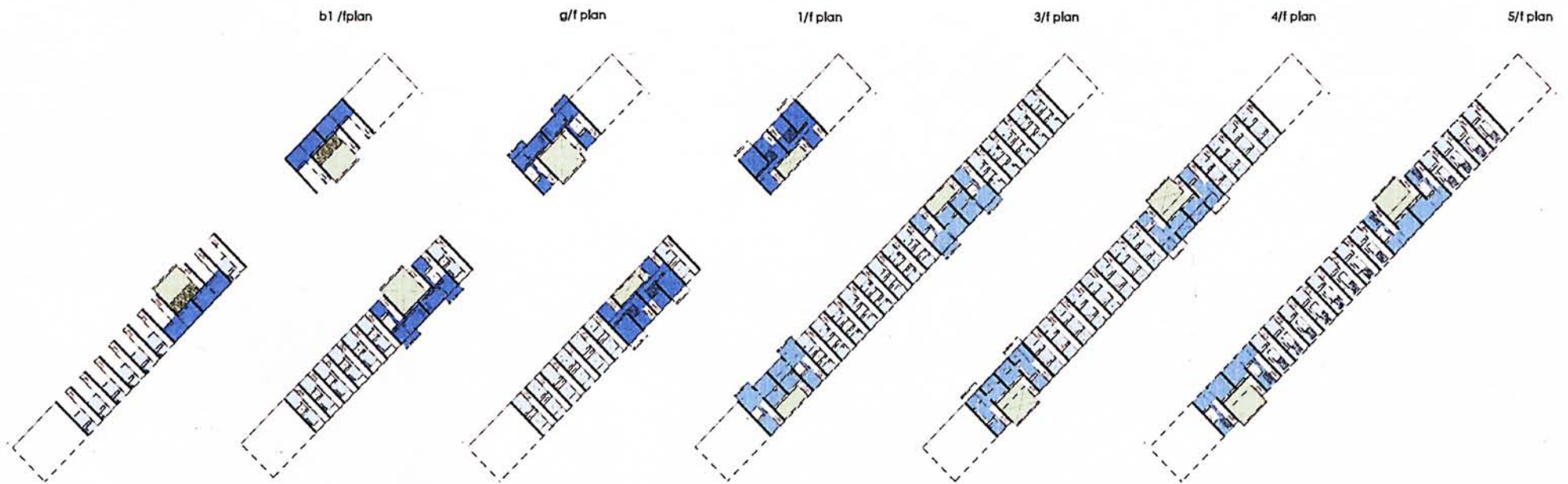
interaction of house units and communal path



f i n a l
d e s i g n



house unit | overall layout



f l n a l
d e s i g n

.....The zone between inside and outside, the in-between as it were, recalls the ancient truth, reminding us of the relationship between man, nature and architecture, and communicating a clear sense of the natural. : The triad man-nature-building is once again brought into a harmonious union between man and nature: **"architecture with nature or even building as nature."**

Tadao Ando , Building is nature is building

ARCHITECTURE LIBRARY

建築學圖書館

THESIS 畢業論文

Overdue Fines on Thesis

HK\$1.00 per hour

4 hrs.

Time Due 還書時間		
29 SEP 2010 6:18 pm		
- 9 SEP 2011 5:12 pm		
28 SEP 2012 6:45 pm		

CUHK Libraries



004270266